TABLE 3.—*Free-air resultant winds based on rawin observations made near 0300 G. C. T., during September 1949. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Speeds in meters per second*—Continued

Altitude (meters) m. s. l.	Miami, Fla. (12 m.)			Nantucket, Mass. (14 m.)			Nashville, Tenn. (180 m.)			New Orleans, La. (6 m.)			Oakland, Calif. (8 m.)			Oklahoma City, Okla. (392 m.)			Rapid City, S. Dak. (980 m.)			San Antonio, Tex. (242 m.)			San Juan, P. R. (28 m.)			St. Cloud, Minn. (318 m.)			Santa Maria, Calif. (72 m.)			Sault Ste. Marie, Mich. (221 m.)			Spokane, Wash. (726 m.)		
	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.	Obs.	Dir.	Spd.
Surface	30	100	1.7	30	250	0.9	30	248	0.4	30	124	2.5	30	280	3.6	30	113	2.7	30	350	0.9	30	103	3.1	29	112	2.1	30	273	0.6	30	271	2.0	30	267	0.6	30	195	0.9
500	30	116	4.7	30	242	3.4	30	102	.5	29	93	3.6	29	278	3.7	28	118	3.1				30	113	5.3	29	100	5.9	30	254	2.3	30	328	3.0	30	246	4.0			
1,000	30	120	4.6	30	247	4.7	30	202	1.6	29	84	3.8	29	280	3.3	28	154	4.7	30	350	.9	30	109	4.9	29	98	6.2	30	271	5.9	30	340	2.6	30	258	7.3	30	205	.6
1,500	30	122	3.6	30	239	5.8	30	246	2.4	29	69	3.4	29	278	2.1	28	161	3.2	30	313	1.7	30	96	3.5	29	98	6.0	29	283	8.2	30	16	1.2	28	265	8.3	30	260	1.4
2,000	30	126	3.2	30	245	7.5	30	271	3.9	29	66	1.9	29	251	1.5	30	229	3.6	30	293	3.5	30	99	2.1	29	95	5.6	29	292	8.4	30	41	.3	28	272	9.3	30	265	1.7
2,500	30	133	3.4	30	248	7.9	30	279	4.9	29	50	.9	29	250	2.2	30	250	3.3	30	286	5.9	30	87	1.4	29	93	5.6	29	288	8.7	30	254	1.6	28	273	10.2	29	278	2.1
3,000	30	129	3.6	30	248	8.9	30	274	6.1	29	32	.9	29	249	2.5	30	272	3.2	30	284	8.0	30	27	.6	29	93	5.6	29	291	9.8	30	246	3.3	28	274	11.1	29	276	3.2
4,000	30	128	3.0	29	243	10.5	30	285	8.3	28	273	2.0	29	262	2.4	29	310	4.5	30	288	12.0	30	60	1.3	29	89	4.9	28	292	11.9	28	246	5.9	28	277	13.2	29	267	5.4
5,000	29	124	2.3	28	243	12.1	30	285	10.7	27	307	4.5	28	260	3.8	29	309	5.6	29	293	12.7	29	277	.3	28	89	3.4	27	291	13.8	28	249	7.6	28	276	14.3	28	277	5.9
6,000	29	89	1.6	27	243	13.2	29	280	11.8	26	301	4.0	26	253	6.5	29	303	8.0	28	295	16.3	28	233	1.9	27	103	3.4	26	289	15.4	28	247	9.1	26	277	15.3	28	285	6.6
8,000	28	34	1.7	21	246	19.2	29	278	16.0	24	278	6.4	24	265	10.7	27	298	12.0	24	281	16.6	27	270	4.8	27	125	2.2	22	290	17.1	27	257	14.2	25	280	19.5	24	310	4.9
10,000	28	11	3.0				29	277	21.9	23	242	11.6	22	263	12.4	26	260	16.5	18	278	17.0	26	288	7.5	27	135	.2	20	283	18.0	23	255	18.8	18	285	20.2	21	307	2.8
12,000	28	329	5.3				26	276	25.5	22	261	12.5	18	265	16.5	24	248	19.2	15	273	19.0	24	264	11.8	26	332	1.9	16	284	18.7	16	258	18.9	14	289	19.2	17	293	7.3
14,000	24	336	6.6				13	281	28.9	16	285	13.3				17	253	16.0	11	272	15.3	17	296	15.3	22	332	1.2	12	300	17.3	14	263	16.8				13	295	7.5
16,000	13	14	2.9							11	272	8.5										10	266	10.7	18	66	3.8											

Altitude (meters) m. s. l.	Tatoosh Island, Wash. (33 m.)			Altitude (meters) m. s. l.	Tatoosh Island, Wash. (33 m.)		
	Observations	Direction	Speed		Observations	Direction	Speed
Surface	30	186	2.0	4,000	28	283	4.1
500	30	266	1.4	5,000	28	284	4.4
1,000	30	261	1.5	6,000	26	288	4.5
1,500	30	247	1.5	8,000	25	300	4.1
2,000	30	265	2.0	10,000	21	288	5.5
2,500	29	274	2.5	12,000	16	273	4.4
3,000	28	286	3.0				

NOTE.—Resultants prepared from rawins at high altitudes are biased toward lower wind speeds. Values appearing in this table should therefore be used with caution when the number of observations missing is greater than three. See note following Table 3 in the June 1948 issue of the MONTHLY WEATHER REVIEW.

LATE REPORT FOR AUGUST 1949

TABLE 1

Standard pressure surface (mb.)	Swan Island, W. I. (1,013.0 mb.)				Standard pressure surface (mb.)	Swan Island, W. I. (1,013.0 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity		Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	10	27.4	81	450	31	6,719	−11.4	37
1,000	31	124	26.6	82	400	31	7,603	−17.7	39
950	31	580	23.6	82	350	31	8,588	−24.6	
900	31	1,049	20.8	80	300	31	9,691	−32.7	
850	31	1,542	18.0	73	250	31	10,949	−42.4	
800	31	2,060	15.2	65	200	31	12,419	−54.2	
750	31	2,609	12.3	55	175	29	13,261	−60.5	
700	31	3,181	9.3	54	150	24	14,201	−66.5	
650	31	3,796	5.8	52	125	19	15,298	−71.5	
600	31	4,443	2.1	49	100	16	16,611	−73.0	
550	31	5,141	−1.8	45	80	6	17,931	−70.6	
500	31	5,893	−6.2	42					

RIVER STAGES AND FLOODS FOR SEPTEMBER 1949

No major floods occurred during September. Most of the flooding was due to flash rises in several areas resulting from heavy showers. The most destructive of these occurred in Bernalillo, N. Mex., during the early morning hours of the 30th. These floods were not as destructive as those which occurred during June but were more destructive and numerous than one year ago.

Atlantic slope drainage.—Heavy rains (2 to 3 inches) during the latter part of the first week in the headwaters caused light flooding on the Saluda at Pelzer and Chappells, S. C., and on the Broad River at Blairs, S. C. No damages resulted.

East Gulf of Mexico drainage.—Very heavy rains (up to 5 inches or more) in the headwater streams of the Chattahoochee River, caused widespread flooding from Norcross, Ga., northeastward on the 5th and 6th. Most of the tributaries and the main channel of the Chattahoochee above Norcross reached flash flood proportions shortly after the rains. No important high water occurred below Norcross on the Chattahoochee or at other points on major streams. Considerable damage resulted from these flash floods.

Heavy rains over the headwater areas during the 24-hour period ending at 7 a. m. on the 6th caused moderate to sharp rises over the Etowah, Oostanaula and upper Coosa Rivers, with light flooding on the Etowah River at Canton, Ga. No damages resulted from the high water.

Light flooding occurred on the Pearl River at Bogalusa, La., on the 8th, and again on the 11th and 12th. The first overflow was due to heavy rains which resulted from the tropical disturbance moving inland over southeastern Louisiana, on the morning of the 4th. The second overflow was due to heavy thundershowers over the local area on the 9th.

Missouri Basin.—Intense thundershowers (2 to 3 inches) north of Sioux City, Iowa, on the afternoon of the 3rd caused Perry Creek to rise to bankfull stage within a few hours. Most of the rain fell in one hour. Several streets were flooded in northwest Sioux City due to run-off from the hills and to water backing up into the streets from the sewers.

Heavy rain (4 to 5 inches) again fell over the Perry Creek basin on the 10th and 11th causing more serious flooding than during the first storm. The flooding again was mainly due to the water backing up into the streets from the sewers. Damages were confined mostly to bridges, heavy deposits of mud on streets and lawns, and the flooding of basements.

The Floyd River overflowed its banks from the vicinity of Merrill to near James, Iowa, due to heavy rain on the 10th and 11th. The heaviest rain occurred along the lower portion of the basin. LeMars and Merrill, Iowa, reported over 5 inches of rain during the 24-hour period ending at 8 a. m. on the 11th. About 1,500 acres of land were inundated, most of it pasture land, and willow wooded areas. Losses were not heavy.

Light flooding occurred along the Big and Little Blue Rivers in Nebraska and for a short distance into Kansas during the first half of the month. Slight flooding occurred on the Republican at Cambridge, Nebr., and along the Delaware River at Valley Falls, Kans. Losses were negligible.

Flood stages were exceeded on the Chariton, Grand, Weldon, and Thompson Fork Rivers in northwestern Missouri, the Lamine and Blackwater Rivers in central Missouri, and the Stranger Creek in northeastern Kansas, due to the heavy rain (5 to 6 inches) during the night of the 11th and 12th. An unofficial 8-inch fall in the headwaters of the Stranger Creek just south of Atchison, Kans., caused 2- to 3-foot overflows in that area and bankfull stages downstream to Tonganoxie. The Weldon River rose 12 feet during the early morning hours of the 12th at Mercer, Mo., but no flooding occurred except in the smaller streams to the north. Damages from the flooding were small except in the area south of Atchison, Kans., where 1,000 acres were inundated.

Arkansas Basin.—Minor flooding occurred on the upper Chikaskia on the 6th and 12th and on the Caney River above Hulah, Okla., on the 19th. The first overflow on the Chikaskia resulted from rains averaging about 3 inches during the 48-hour period ending on the 5th, and the second to rain averaging less than 1 inch. The damage from the overflows was negligible.

West Gulf of Mexico drainage.—A flash flood occurred in Bernalillo, N. Mex., during the early morning hours of the 30th. This flood was due to heavy thunder showers in the nearby Sandia Mountains. The Bernalillo and Sandia irrigation canals were destroyed as the water poured down the Sandia Mountains through numerous gullies and arroyos. A convent and 10 homes were destroyed and considerable land was flooded.

FLOOD STAGE REPORT FOR SEPTEMBER 1949

[All dates in September unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
Roanoke:	*Feet*			*Feet*	
Weldon, N. C.	31	1	1	32.4	1
Williamston, N. C.	10	3	11	10.9	7,8
Tar: Enfield, N. C.	14	Aug. 31	1	14.4	1
Neuse:					
Smithfield, N. C.	13	Aug. 29	3	19.0	Aug 31
Goldsboro, N. C.	14	1	12	20.7	5
Kinston, N. C.	14	4	15	17.7	8
Cape Fear: Lock No. 2, Elizabethtown, N. C.	20	Aug. 30	Aug. 31	30.0	Aug. 31
Yadkin: Wilkesboro, N. C.	14	Aug. 29	Aug. 29	17.1	Aug. 29
Pee Dee: Pee Dee, S. C.	19	Aug. 24	4	21.9	4
Saluda:					
Pelzer, S. C.	6	6	12	9.2	7
Chappells, S. C.	13	10	10	14.2	10
Broad: Blairs, S. C.	14	8	8	16.0	8
Edisto: Givhans Ferry, S. C.	10	Aug. 28	4	14.4	4
EAST GULF OF MEXICO DRAINAGE					
Chattahoochee: Norcross, Ga.	16	8	8	19.4	8
Pearl: Bogalusa, La.	15	8	8	15.0	8
		11	12	15.2	12
MISSISSIPPI SYSTEM					
Missouri Basin					
Floyd: James, Iowa	14	11	13	18.1	12
Republican: Cambridge, Nebr.	5	1	1	6.2	1
Little Blue:					
Endicott, Nebr.	9	6	8	12.2	7
Hanover, Kans.	14	7	7	14.2	8
Big Blue:					
Crete, Nebr.	16	11	12	17.8	11
Barnston, Nebr.	18	7	7	20.3	7
		12	13	20.4	12
Blue Rapids, Kans.	20	8	8	21.8	8
		12	13	22.0	12–13
Delaware: Valley Falls, Kans.	22	12	13	22.9	12
Stranger Creek: Tonganoxie, Kans.	23	15	15	23.1	15
Grand:					
Chillicothe, Mo.	18	13	13	19.1	13
Sumner, Mo.	25	13	13	25.1	13
Brunswick, Mo.	12	14	14	12.2	14
Chariton: Novinger, Mo.	20	12	13	21.3	13
Lamine: Clifton City, Mo.	15	12	13	18.0	13
Blackwater: Blue Lick, Mo.	25	15	15	25.0	15
Arkansas Basin					
Caney: Hulah, Okla.	30	19	19	33.4	19

[1] Provisional.

ESTIMATED FLOOD LOSSES FOR 1947 [1]

Monetary losses from floods in the United States, estimated at $272,000,000, was slightly greater than in 1944 and 1945 combined and four times greater than in 1946. It was the 4th greatest monetary loss from floods since 1924, being exceeded in 1927, 1936, and 1937. The loss in life was greater than in 1944, and 1946, but less than in 1945, when 91 lives were lost as compared with 55 during 1947.

The major flood event of the year occurred in the Middle West in the lower Missouri and middle Mississippi Rivers in June and July. It was one of the most disastrous floods on record with the Mississippi reaching its highest stage since 1844, at St. Louis, Mo. Record stages were reached on several streams, including the Des Moines and Raccoon in Iowa, the Platte in Nebraska, the Grand River in Missouri, and also at a few stations on the Mississippi and Missouri Rivers.

[1] Flood loss statistics for 1944 and 1945 were published in the June 1948 and for 1946 in the September 1948 issues of the Monthly Weather Review. The issues in which flood losses previous to 1944 were published are indicated in vol. 73, No. 8, August 1945.

ESTIMATED FLOOD LOSSES FOR 1947

TABLE 1

River and drainage	Urban property					Rural property					Other property		Miscellaneous	Unclassified	Total loss	Lives lost
	Residential		Commercial		Public	Crops		Livestock	Other		RR's, bridges, highways, etc.	Public Utilities				
	Fixed	Movable	Fixed	Movable		Growing	Stored		Fixed	Movable						
HUDSON BAY DRAINAGE																
Red River of the North	$140,300	$6,400	$13,500		$313,500	$15,000					$275,000	$10,000	$13,100		$786,800	
ST. LAWRENCE DRAINAGE																
Lake Michigan																
Menomonee River											2,000				2,000	
Grand, Red Cedar and Flat Rivers	336,000	12,500	320,500	$4,700	187,500				$2,000	$200	48,200		34,600		946,200	1
Kalamazoo River	161,500		670,400	17,000	9,500	1,000		$1,000	12,000		56,000	55,000	17,200		1,000,600	
Paw Paw River and Ox Creek	5,000		132,000		92,000										229,000	
Total	502,500	12,500	1,122,900	21,700	289,000	1,000		1,000	14,000	200	106,200	55,000	51,800		2,177,800	1
Lake Huron																
Saginaw River and tributaries	16,900		4,600	12,500	4,200	10,000			2,000		1,400	5,700	42,500		99,800	
Bad River	5,000		3,000	3,000									5,000		16,000	
Clinton River	151,000		50,000	58,000	52,000	20,000		5,000	50,000	10,000	100,000	10,000	175,000		681,000	
Total	172,900		57,600	73,500	56,200	30,000		5,000	52,000	10,000	101,400	15,700	222,500		796,800	
Lake Champlain																
East Creek (Vermont)														$2,000,000	2,000,000	
ATLANTIC SLOPE DRAINAGE																
Androscoggin, Kennebec, St. John, and Penobscot Rivers	4,000			5,000							4,000				13,000	
Connecticut River											75,000		5,000		80,000	
Lackawaxen River														5,000	5,000	
Susquehanna River														100,000	100,000	
Cape Fear, Tar, Neuse, and Roanoke Rivers		500	20,000	20,000	230,000	25,000	$100,000	1,100	1,100		7,500		52,500		457,700	
Santee River and tributaries	3,000		3,000		10,000	468,500							2,000		486,500	
Total	7,000	500	23,000	25,000	240,000	493,500	100,000	1,100	1,100		86,500		59,500	105,000	1,142,200	
EAST GULF OF MEXICO DRAINAGE																
Apalachicola River													15,000		15,000	
Choctawhatchee River						10,000		2,700			117,500				130,200	
Alabama River and tributaries	35,000	10,000	5,000	5,000	5,000	20,000	3,000	1,000			10,000	1,000	17,000		112,000	
Black Warrior and Tombigbee Rivers					5,000	284,800		2,000	11,800	500	3,500		15,500		323,100	
Pearl, Pascagoula and tributaries	1,000				5,000			11,000	8,000	1,500	23,000	1,500	22,800		73,800	
Total	36,000	10,000	5,000	5,000	15,000	314,800	3,000	16,700	19,800	2,000	154,000	2,500	70,300		654,100	2
MISSISSIPPI SYSTEM																
Upper Mississippi Basin																
Zumbro and Whitewater Rivers	400	200			200	500			100		3,500		100		5,000	
Trempealeau River	2,500					800			2,000		15,000		500		20,800	1
Root River											2,000				2,000	
Kickapoo River	800					45,400			200		1,000				47,400	
Iowa, Maquoketa, Turkey and Wapsipinicon Rivers	277,500	29,000	114,000	203,000	1,278,500	4,419,200	57,000	54,000	834,000	105,000	2,885,000	82,700	178,400		10,517,300	1
Grand and Platte Rivers in Wisconsin; Rock, Galena, and Edwards Rivers in Illinois	155,200	21,100	15,200	41,100	20,200	665,300		1,000	82,800	3,000	300,700	5,200	1,100		1,311,900	
Skunk River						3,500,000					10,000			684,400	4,194,400	
Des Moines River						5,522,500	2,000		1,000	1,000	3,000		3,472,500	17,368,300	26,370,300	25
Fox River						529,500					10,000			350,400	889,900	
Fabius and Wyaconda Rivers						803,900			5,200		200		600	293,700	1,103,600	
Bear Creek													302,000	312,500	614,500	
Salt River					5,000	555,100			300	100				43,000	603,500	
Cuivre River						66,000								4,000	70,000	
Illinois River						2,370,700							6,000	510,500	2,887,200	
Meramec River						309,200								247,000	556,200	
Kaskaskia River						272,800								500	273,300	
Mississippi River (Upper)	5,000		2,600			23,155,900		99,500	1,000				3,226,000	11,979,600	38,469,600	
Total	441,400	50,300	131,800	244,100	1,303,900	42,216,800	59,000	154,500	926,600	109,100	3,230,400	87,900	7,187,200	31,793,900	87,936,900	27

ESTIMATED FLOOD LOSSES FOR 1947—Continued

River and drainage	Urban property					Rural property					Other property		Miscellaneous	Unclassified	Total loss	Lives lost
	Residential		Commercial		Public	Crops		Livestock	Other		RR's, bridges, highways, etc.	Public Utilities				
	Fixed	Movable	Fixed	Movable		Growing	Stored		Fixed	Movable						
Missouri Basin																
Yellowstone River and tributaries			$2,300		$900	$23,100					106,200		$12,000	$182,000	$326,500	
Little Missouri River	$4,800		2,200		7,600			$15,100	$72,000	$2,400	8,200		17,900		130,200	
Knife and Heart Rivers	6,700		4,000		6,500	1,300		[1] 3,100	13,100	400	26,800		25,500	1,000	88,400	
Cannonball, Grand and Moreau Rivers					1,000	7,800		54,300	6,000	100	20,500		4,200	34,300	128,200	
Cheyenne River and tributaries	24,200		130,300		58,200	1,300			5,400	900	111,000	$8,500	15,000		354,800	
White River						40,000							8,000	15,200	63,200	
Ponca and Keyapaha Creeks (South Dakota)						36,300							16,700	75,600	128,600	
Verdigre River						38,300							121,900	307,800	468,000	
James River						618,000							108,000	102,500	828,500	
Big Sioux River						71,900	$61,800						47,000	181,700	362,400	
Floyd River						60,000							11,000	52,900	123,900	
Little Sioux River						187,100							52,000	159,600	398,700	
Wood River						489,700							126,200	351,500	967,400	
Mosquito Creek (Iowa)						37,300							753,000	97,800	888,100	
Loup River						101,500		3,500					360,800	2,005,700	2,471,500	
Elkhorn River and tributaries	100					340,000	2,000		800		23,500		152,000	675,700	1,194,100	
Papillion Creek (Nebraska)						76,500							65,600	360,900	503,000	
Platte River and tributaries						6,840,500		[1] 127,200					486,900	2,771,900	10,226,500	
Keg Creek (Iowa)						10,000							3,100	10,400	23,500	
Weeping Water Creek (Nebraska)						260,100							179,600	346,100	785,800	
Indian Creek (Iowa)													41,800	278,800	320,600	
Nishnabotna River						4,000,000							2,470,000	4,800,900	11,270,900	2
Nemaha River and tributaries						3,516,800		[1] 95,900						789,900	4,402,600	1
Tarkio River and tributaries						634,200		[1] 8,300					300	53,800	696,600	
Nodaway River and tributaries						2,844,000		[1] 109,600						1,026,100	3,979,700	
Republican River and tributaries						10,963,100		[1] 1,157,000						2,907,400	14,127,500	14
Solomon River						709,500		2,800						4,300	716,600	
Little Blue and Big Blue Rivers						2,505,100		44,500					5,700	627,700	3,183,000	
Kansas River and minor tributaries						1,864,500		[1] 13,100						60,300	1,937,900	
Blue River and tributaries								[1] 23,900					1,100	55,100	80,100	1
Fishing River and tributaries						616,000		[1] 26,400					10,000	532,900	1,185,300	
Grand River and tributaries						19,979,300		[1] 162,500					24,200	3,561,500	23,727,500	
Chariton River						8,317,400		[1] 91,300					200	525,700	8,934,600	
Lamine River						676,200		[1] 3,500						5,200	684,900	
Osage River and tributaries						2,344,700		[1] 26,800					24,000	169,500	2,565,000	
Gasconade River						845,300		[1] 67,900						59,600	972,800	
Missouri River	15,600		5,700		44,200	44,044,100		[1] 1,252,400	132,100	9,200	19,900	300	1,312,900	17,092,500	63,928,900	
Total	51,400		144,500		118,400	112,200,900	63,800	3,289,100	229,400	13,000	316,100	8,800	6,456,600	40,283,800	163,175,800	18
Ohio Basin																
Allegheny River	712,900	312,000	541,300	1,035,400	344,400	45,000		2,000	17,000	1,000	168,000	41,300	349,000	750,000	4,319,300	1
Chestnut Creek (SW Virginia)	72,000		158,300		5,000						3,200		9,000		247,500	
Kentucky River	20,000	15,000		1,000		20,000	5,000	500	10,000	4,000		1,500	13,000		90,000	
Blue River and Brock Creek (Indiana)														500,000	500,000	
Wabash River						308,000				6,000	1,000			2,000	317,000	
Cumberland River	97,100		234,000		8,500	260,500			106,500			19,000	15,000		740,600	2
Small streams in area of Green County, Tennessee	1,800	500	5,000	13,000		1,500,000			2,000		1,000	2,000	5,400		1,530,700	2
Tennessee River and tributaries	600		200								500		300		1,600	
Ohio River	700					62,500			100				2,400		65,700	
Total	905,100	327,500	938,800	1,049,400	357,900	2,196,000	5,000	2,500	135,600	11,000	173,700	63,800	394,100	1,252,000	7,812,400	5
Arkansas Basin																
Small mountain streams in Pueblo and Huerfano Counties, Colorado	65,000		15,000								145,000				225,000	
Fountain Creek														[2] 100,000	100,000	1
Ninnescah and Chikaskia Rivers								1,000	5,000		216,500				222,500	
Walnut River						11,000			6,000		26,000	20,000			63,000	
Cimarron River						14,000					6,000				20,000	
Verdigris and Caney Rivers			500		1,000	114,000			19,000		12,500		5,700		152,700	
Neosho River						46,600		500	17,500		21,700		23,000		109,300	
Canadian River						15,000					350,000		15,000		380,000	
Arkansas River						104,500			3,500		30,000		13,000		151,000	
Total	65,000		15,500		1,000	305,100		1,500	51,000		807,700	20,000	56,700	100,000	1,423,500	1
Red Basin																
Little River						[3] 1,214,000		2,500	199,000		18,000				1,433,500	
Sulphur River						5,000		1,000	1,000				5,000		12,000	
Total						1,219,000		3,500	200,000		18,000		5,000		1,445,500	

Lower Mississippi Basin																
Yazoo and Tallahatchie Rivers						90,000							200,000	410,000	700,000	
Mississippi River (Lower)	2,000		12,500		5,700	1,405,300	6,000	1,600	14,600	1,700	67,300	500	338,100		1,855,300	1
Total	2,000		12,500		5,700	1,495,300	6,000	1,600	14,600	1,700	67,300	500	538,100	410,000	2,555,300	1
WEST GULF OF MEXICO DRAINAGE																
Nezpique River											20,000				20,000	
Sabine River														300,000	300,000	
Trinity River						700		3,100			5,000		300		9,100	
Guadalupe River							900								900	
Total						700	900	3,100			25,000		300	300,000	330,000	
GULF OF CALIFORNIA DRAINAGE																
Colorado River											3,000				3,000	
PACIFIC SLOPE DRAINAGE																
Columbia Basin																
Flathead River						15,000			8,500		2,500		1,000		27,000	
Kootenai River						55,000					5,000				60,000	
Potlatch River											1,000				1,000	
Total						70,000			8,500		8,500		1,000		88,000	
Grand Total	2,323,600	407,200	2,465,100	1,418,700	2,700,600	160,558,100	237,700	3,479,600	1,652,600	147,000	5,372,800	264,200	15,056,200	76,244,700	272,328,100	55

[1] Includes movable farm propertyy.
[2] Damage to bridges and urban property.
[3] Includes all crop losses.